

NATIONAL CONFERENCE ON EMERGING ISSUES/CONCERNS
IN SCHOOL EDUCATION AND THE ROLE OF NCERT
(29-30 August, 2001)

- A Report



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Introduction

The mandate of NCERT is to advise and assist MHRD, Govt. of India in formulation and implementation of its policies and major programmes in the field of school education and also to assist/collaborate with State Education Departments in the implementation of their policies/programmes in school education. During the last forty years NCERT through its network of constituent units i.e. National Institute of Education (NIE), New Delhi, Regional Institutes of Education (RIEs) located at Ajmer, Bhopal, Bhubaneswar, Mysore and Shillong, Central Institute of Educational Technology (CIET), New Delhi, Pandit Sunderlal Sharma Central Institute of Vocational Education (PSSCIVE), Bhopal and Offices of the Field Advisors located in the states provided leadership in promoting quality and standard of school education, helped in building capacity of state-level institutions and developed partnership and linkages with state departments of education/state-level resource institutions through inputs like **research, survey, development, training, extension activities, innovation, experimentation, documentation, and dissemination**.

The activities of NCERT were focused on priority areas like formulation/revision of national curriculum framework, universalisation of elementary education, vocational education, education of groups with special needs, early childhood education, evaluation and examination reform, IT education, value education, educational technology, development of exemplar text books/work books/teachers guide/supplementary reading materials, production of teaching-learning materials, women education, popularization of science, pre-service and in-service teacher education, identification and nurturing of talent, guidance and counseling. The important activities of NCERT include production of text books and instructional materials, conduct of innovative pre-service courses and in-service training programmes for key persons, resource persons, teacher educators and teachers, implementation of PMOST and SOPT, organization of Jawaharlal Nehru Science Exhibition for children, National Prize Competition for children's Literature, National Talent Search Scheme, International Poster Contest under Population Education Programme, National Awards in Innovations for Teachers and Teacher Educators, teacher's training through teleconferencing mode, International Seminars on Researches in School Effectiveness at the Primary stage and programmes for promotion of values. NCERT has been undertaking projects/programmes in collaboration with international organizations such as UNESCO, UNICEF, UNDP, UNFPA etc. in areas of concern of school education.

New initiatives undertaken by NCERT include development of National Curriculum Framework (2000), setting up of National Resource Centre for Value Education, setting up of National Centre for Computer Extended Education, introduction of innovative 2 year B.Ed programme, revival of

Community Singing Programme in order to promote values among school children, proposed International Programme in Guidance and Counselling, the proposal to set up International Centre for Special Needs Education, the pilot project entitled 'In-service Primary Teacher's Training through Interactive Television' and extension of SCOP Scheme to higher stages of School Education.

It is widely recognized in recent years that School Education has undergone considerable changes in the past two decades and these changes are likely to intensify further in new millennium. Such changes have emerged out of policy directions (NPE and POA 1986 modified in 1992), emphasis on thrust areas of Five Year Plans on School Education and factors like liberalisation, privatisation, globalisation, decentralisation in management of education, advances in information and communication technology and many such factors. This has necessitated the organization of Conference of national level experts/eminent educationists to review the existing status of programmes and to suggest new initiatives to be undertaken by the NCERT in future in the light of emerging concerns/issues of school education.

Objectives of the Conference

The specific objectives of the Conference were

- to make an in-depth analysis of emerging concerns/issues of school education
- to examine the issues that have emerged or emerging out of policy directives about NCERT programmes
- to consider the programmes and new initiative of the Depts/constituents of NCERT and to identify gaps
- to evolve a policy perspective about the future activities/programmes of NCERT

Proceedings

Prof. D.K. Bhattacharjee, Head, DERPP welcomed Prof. J.S. Rajput, Director NCERT and other distinguished academicians, external experts, Heads of the XII Depts./constituents units and other participants. (List of participants is appended).

Prof. J.S. Rajput, Director NCERT initiated the discussion with his observations on wide ranging issues. The observations made/issues highlighted by him are

- The presence of the distinguished academicians who have been associated with NCERT's work and mission during the last three to four decades in various ways has made the Conference rich and meaningful
- NCERT was established 40 years ago with a mandate to assist and advise the Central and state governments in all aspects of school education. The role of NCERT is advisory. The organisation gained credibility in the states for the quality of work done by its sincere and committed faculty. Indebtedness to all those who collectively contributed to the credibility of the organization was expressed
- During the last few years of 20th century school education has undergone tremendous changes. The recommendations of the Report of the Delor's Commission which focuses on the four pillars of learning have significant bearing on school education. He emphasized the need to analyse the impact of emerging issues, concerns like privatisation, globalisation, liberalisation, localisation, information and communication technology and such on school education
- There is a need to examine how NCERT should perform its role of assisting and advising Central/state governments in all aspects of school education
- The Conference has two purposes - first, what type of short-term activities, programmes, projects should be undertaken up by different departments of NIE/constituents of NCERT, second, what should be the long-term policy perspectives about NCERT's programmes? What should be the vision of NCERT?
- A large number of children are still outside the formal school system. There is need to develop interventions for these children.
- The Conference should debate on the components and parameters of 'quality education' since quality improvement is an important focus of NCERT's work
- Research, survey and innovations are important tasks of NCERT. The Conference should deliberate on what type of researches should be carried out? What should be the focus of survey? What type of innovations NCERT should undertake and promote?
- NCERT has recently prepared the revised National Curriculum Framework for School Education and is in the process of preparing textual and other materials. The major issues of curriculum have been derived from NPE/POA. The framework also focuses on some other changes such as evaluation practices, reduction of curriculum load etc. NCERT is to help the state in implementing the curriculum framework suited to local context
- Teacher education remains a major focus of NCERT's work. During the process of implementation of Curriculum Framework, there should be a corresponding plan of action for pre-service and in-service education of teachers. What should be the future perspectives of training? Contextuality could be a major focus. There could be multiple contexts-cultural, regional, economic and social.

- There is a general dissatisfaction among the people regarding the performance of schools and teacher training institutions. The schools are not well equipped. DITs are not fully functional. VECs are also not fully operational. While developing programmes these ground realities are to be kept in view by NCERT.
- There is need to design interventions in the areas of education of girl child, disabled children, children belonging to SC/ST and out of school children.
- NCERT has to collaborate with institutions like CBSE, KVS, National Open School etc.
- NCERT has to play a pivotal role in implementation of Sarva Shiksha Abhiyan to realize the goals of UFE. "What strategies needs to be adopted?"
- While doing internal re-structuring functionality is to be kept in view. NCERT may also consider its internal restructuring. The Conference may suggest how it can be best achieved.

After the observations of Director, the morning session was devoted for comments and observations on the emerging issues of school education and the role of NCERT by external experts/participants.

In the afternoon session the Heads of the NIE departments/constituent units of the Council presented the activities and the future thrust of the programmes which was continued till morning session of 30th August, 2001. Vision documents were also presented. The gist of the presentations highlighting future thrust of programme areas/activities of NCERT are given in Appendix I. These presentations were again followed up by observation of external experts and participants. In the last session, the discussions were summed up with Director NCERT in chair.

Observation by External Experts/Participants

The observations of external experts/participants on emerging issues/concerns related to Policy/Perspectives/Programmes of NCERT are highlighted below.

- NCERT's advisory role - a significant mandate - needs to be more proactive. While providing advice to the government - central and states - on policy formulation and programme implementation, it should on its own suggest interventions. Advisory role should be supported by research & survey and a reliable database.
- It was felt that there is a need for the Council to take stock of the role it has performed in the past, objectively assess the strengths and weaknesses and prescribe remedial steps to be initiated for the removal of weaknesses. Scope for 'Think Tank' function through introspections needs to be built up in the mechanisms of the programme formulation and monitoring within the Council.

Due to many constraints we have become too much pessimistic about the role of education in initiating social changes and development. There is a need to identify the constraints.

Regional imbalance in educational development needs to be focused and steps should be taken to remove it. There is need to formulate the index of educational backwardness which is changing from state to state.

It was suggested that NCERT may undertake in-depth study on various parameters of school education in the states in the pattern of study on human development by World Bank. The study should highlight action plans, strategies, options and alternatives.

- Inspite of our best efforts we have not been able to produce good scientists today. NCERT should undertake research study to find out how and why the enrolment of students in science is declining and should suggest appropriate interventions.
- Many programmes do not have empirical base. The relevance of each programme should be critically analysed and the needs of the programmes should emerge from research and survey.
- A considerable number of children are likely to discontinue education at different stages particularly belonging to SC/ST and girls. NCERT needs to be concerned with these children who leave the school prematurely at different stages by developing suitable interventions.

NCERT may take necessary steps for implementation of National Curriculum Framework for School Education (2000) in the states by providing an appropriate guideline.

- General public are not aware about the contents and themes of New Curriculum Framework. There is a need for organising awareness programmes right from the grassroot level.
- NCERT is to develop alternative approaches for transaction of curriculum in different context.
- Reduction of curriculum load should be done scientifically.

It was felt that the research function of the Council needed strengthening. Researches, field experimentation and innovation are the need of the time. The Council while undertaking its own researches based on national designs, also need to promote and support through its ERIC, policy relevant researches and seek collaborations of universities and research institutions in

designing and executing large-scale studies covering the entire country involving large samples of institutions, students, teachers and community members. Such an activity would go a long way in maintaining meaningful database on the inputs, processes and outcomes of school education and would also provide strength to its advisory role. These studies could be related to development of modalities to institutionalize school based in-service education for teachers, development of standards for quality teaching and training, issues related to making curriculum local-specific, life skill requirements for those children who will discontinue after primary and upper primary stage for entry into job particularly SC/ST children, the socio-economic and cultural constraints affecting school education, implications of the appointment of para teachers on quality of schooling, productivity of school education in different states, evaluation of performance of state level resource institutions, identification of multiple handicaps i.e. socio economic, cognitive, linguistic, motivational and family support preventing the children belonging to disadvantaged groups in participation and success of education, interventions for promotion of education of disadvantaged groups, impact of existing interventions etc.

- Training of teacher educators in educational research should be an important concern of NCERT

Collaborative international research should also be undertaken by NCERT

- On the basis of well defined indices of quality an effort would have to be made to determine through systematic studies, the quality of schooling available in different parts of the country particularly in rural and tribal areas where educational provisions are generally sub-standard and people do not have the resources to provide quality education to their children. Such studies might also help in determining the relationship that exists between inputs and output (outcomes) and thus assist in designing meaningful interventions.
- NCERT should act as an instrument of quality control
- There is disparity in the "quality" of education between schools managed by the government and local bodies and private managements seem to have accentuated. There is a need to identify the nature of such disparity and evolve suitable interventions through research
- There is need to improve the quality of schools located in backward regions

The database provided by the Surveys has assisted the central and state governments in formulating macro and micro educational plans. Action has been initiated for conducting the Seventh All India Education Survey. It

would be useful to shift the emphasis of the survey from largely quantitative to quality aspects of school education, for instance the quality and usability of school infrastructure, teacher competencies in relation to the subjects and states that they teach, teacher motivation and regularity in performing their role, class size etc. In a census type operation, the Surveys have generally to be restricted to items which need quantitative enumeration. It would be desirable to undertake as part of the seventh Survey, thematic studies involving large sample of institutions, teachers and students, which can provide data for judging the quality of schooling.

Human Development should be the goal of education. Number of years of schooling and quality of schooling are the major determinants of human development. Health Education is also an important determinant of human development. There is a need to undertake studies to measure the contribution of school education to human development.

There is need to lay down the standards of quality teaching and training.

Objective based teaching and testing are integral part of quality education.

- In order to make the 'Total Quality Management' in schools, there is a need of developing 'Partnership Approach' in school administration and management. Partnership approach needs to be highlighted in the training of educational administrators.
- The management of curriculum change and transactional competencies of teachers are of particular significance in ensuring that the new curriculum is effectively implemented. Of particular importance would be the competencies of teachers to transact new and major emphasis proposed in the Framework i.e. value orientation of education, integration of subjects for reduction of curriculum load etc.
- The training methodologies and approaches of Council thus may have to adopt multiple and alternative strategies and making use of information and communication technologies to reach the educational functionaries working in the field. The role of CIFE needs in this context to be more specifically delineated.

The pre-service training courses offered by the RIFs need revision, keeping in view the changes envisaged in teacher training strategies in the coming decades.

- Modalities of organization of school/resource center based training programme for school teachers needs to be worked out without dislocating the normal functioning of the school.

Concern for disparities in education is being voiced more forcefully. Education along with media measures tend to enhance individual and group identities and consciousness of deprivations. School education would need to address the concerns of equity, equal opportunity and social justice so that suitable educational interventions are attempted to redress the deprivations from which large segments of population suffer.

The issues of both equity and excellence require a better evaluation systems as compared to the present examination system.

There is a need to provide good quality of English teaching to our children in order to ensure equity.

Council as a whole should set programme priorities and mission tasks to form the basis of programme formulation by departments, groups, divisions, institutes.

NCERI is to organize periodic meetings with the state departments of education, discuss the programmes of NCERI and should find ways of persuading state govt. in implementing policy and programmes related to school education.

There is an organic relationship between NCERI and CBSE. CBSE affiliated schools may be used as laboratory of NCERI.

There is need for synergy among all boards. All boards are to be involved in implementation of curriculum and evaluation practices.

- There is a necessity of including an analysis of the historical developments and changes in the field of school education during post independence period along with the roles played by the NCERI in advising, shaping and facilitating such developments in the vision document. This may be followed by developmental perspectives of school education in the next two decades.
- NCERI's vision should emerge from developmental goals of the country. In the vision document there is a need to incorporate an analysis of school education in the country from the point of view of economic, cultural and social context. The purpose of preparing vision document is to focus on long-term goals. Vision document should reflect vision of NCERI for next 20 years. The document is to focus on the Council's long term goal statements in the form of a vision statements, medium term goals in the form of mission statements and short-term activities in the form of programmes. The vision statement needs to be crisp and inspiring, the mission statements should be integrated and the programmes need to be drawn from the mission statements and should be stated in more specific terms.

The demand for universalisation of secondary education will be generated not only by the pressure exerted by those who complete elementary education but also by the need to provide higher level competencies to the people in the context of scientific and technological advances and their use in production processes and implications for the quality of life. NCFRT's role would be to provide data base which can assist micro and macro planning and indicate the nature of competencies that people will require and how they can be promoted through secondary education.

- There is a need to look into the questions of productivity of school education system. Approximately 40 percent students drop out and 50 percent students fail in the examination at different stages. The number of educated unemployed has increased tremendously. There is a need to assess what kind of knowledge, skills and attitudes we need to give to children. NCFRT should undertake massive research projects to find out answers to such problems. The productivity of school education – in terms of dropout rates, failures in public examinations and attainment levels of students – continue to be low. Equally significant is the education system's inability to provide competencies which will enable people to function as economically productive and socially responsive and creative citizens. Allied to these is the question of school education's relevance to individual and community needs. NCFRT is to undertake studies to determine, in more meaningful terms, the productivity of schools and the quality and relevance of school education in different states.

The productivity and relevance of education can to a large extent be determined by the competencies which enable a person on completion of education to be gainfully employed either as a wage worker or as a self employed individual. An important consideration is the competencies of school leavers who on discontinuing education become an important segment of the work force – settling down in parental and/or community occupations. Their competencies have significant implications for economic well being and quality of life of communities, particularly in rural areas. Work experience and vocationalisation of education become in this context important elements of educational development. The operationalisation of these and their integration for effective implementation particularly in the context of the experience that is already available becomes an important task of NCFRT. It would also be necessary to identify the implication of recent scientific, technological and economic developments for knowledge and skills that will have to be imparted through suitably designed vocational courses.

- There is need to institutionalize reliable internal Continuous Comprehensive Evaluation based on grading system in order to make education tension free.

Techno-economic survey should be the basis of vocationalisation of education at +2 level. In addition, there is also a need to study local specificities before finalising vocational courses.

- Since poverty is a single factor responsible for non-enrolment and dropout at various stages of school education, there is need to develop skills for income generation activities. There is a need to highlight skill based education enhancing income generating capacity in the children who are likely to discontinue education at different stage of school education.
- NCERT as an apex body needs to promote UFE and evolve strategies for implementation of SSA.

NCERT should evolve mechanism for stopping the entry of poor quality teachers into the school system.

In order to perform the expected role, NCERT may explore the possibility of restructuring the departments wherever necessary according to functions.

- There is a need to assess individual and departmental accountability in programme implementation. Some form of regular monitoring and evaluation of programmes needs to be undertaken.

Major Recommendations

The Conference recommends that NCERT is to

1. Establish an institutional mechanism of 'think tank' function for continuous introspection, reflection, forward planning, and development of perspectives. This mechanism could be in the form of an interdisciplinary group of experts which in collaboration with selected faculty of the Council would evaluate critically NCERT's approaches and advise it on formulation of perspectives, policies, strategies and programme that it should design for implementation.
2. Take a proactive role in offering constructive suggestions to MHRD/state governments towards formulation of educational policies and programme interventions informed by its own researches, studies, surveys and database.
3. Design, undertake, commission and promote cooperative/collaborative and interdisciplinary/multidisciplinary national research projects on issues of policy relevance in which university departments and specialized organisations at national and state-level could participate and carry out research based on common designs, common research questions, where the regional/state variations could be reflected.
4. Develop and maintain a database containing information about the qualitative and quantitative measurements of educational parameters. Such a database would have to help even the block level institutions for planning purposes.
5. Shift the emphasis of All India Educational Survey from largely quantitative to quality aspects of school education. It would be desirable to undertake as part of the seventh Survey, thematic studies involving large sample of institutions, teachers and students, which can provide data for judging the quality of schooling.
6. Develop a Composite Educational Development Index (CEDI) on the lines of Human Development Index (HDI) and to publish the changes to reflect the variation in status of school education in states periodically. After 7th all India Educational survey is completed, such index may also include in-depth analysis of one component at a time.
7. Develop a plan of action to help the states in adopting the National Curriculum Framework for School Education (2000) relevant to local contexts in terms of course structure, syllabi and text books and other instructional materials.

- 8 Develop courses in vocational education at school level keeping in view both the local contexts and changes in employment market on the basis of techno-economic survey
- 9 Develop multiple and alternative strategies to deliver its training incorporating advancements in information and communication technologies
- 10 Redesign pre-service teacher preparation courses focusing on emerging areas of new curriculum framework, delivery mechanisms based on Information and Communication Technologies
- 11 Develop a plan of action to build capacity of state level institutions in adopting multiple strategies of training through new communication technologies like teleconferencing, local area networking, internet etc. and in decentralized adaptation of approaches and materials in relation to local needs. Collaborative research, development and materials production also would be one of the mechanism for promoting capacities of state agencies available at different levels
- 12 Bring about a shift from the current examination based system to continuous and comprehensive evaluation based on grading system
- 13 Develop tools to measure achievement at different stages of school education and carry out periodical achievement surveys at the national level in order to provide quality assurance to clientele of education i.e. students, parents and the community
- 14 Bring out its 'Vision Document' containing an analysis of historical development and changes in the field of school education during post independence period, role played by NCERT since its inception and development perspectives of school education in the form of an analysis of school education from the point of view of economic, cultural and social contexts. The vision document should reflect the vision of NCERT for next 20 years. The document is to focus on the Council's long-term goals in the form of vision statements, medium term goals for 5/7 years in the form of mission statements and short term activities in the form of programmes
- 15 Examine its current activities in the light of the vision and missions and identify the functional areas and state needs as the basis of programme formulation
- 16 Strengthen inter-sectoral collaboration and linkages for programme formulation and implementation

Proposed Thrust of Programme Areas/Activities of NCERT

Research, Innovation and Experimentation

- To undertake and support the following type of researches

Policy research

Experimental studies on controversial issues

Evaluative/assessment impact studies

- Inter-disciplinary multidisciplinary studies on interventions to meet the educational needs of the girl child, SC, ST, disabled and other children in difficult circumstances
- Development of indigenous research tools/tests relevant to Indian school system and cultural context
- To design, undertake and promote cooperative/collaborative national research projects/large-scale research projects covering the nation, on issues of policy relevance in which university departments and specialized organizations at the national and state level can participate carry out research, based on common designs/common research questions/methodology where the regional/state variations could be reflected
- To promote innovations/experimentations in the areas of teaching-learning methodology, non-formal education, education of SC/ST, inclusive schooling, value education and teachers training
- For building research capacity of the faculty of SCERT, SIE, CTE, IASE, Education Depts. of Universities, NCERT is to conduct training in Action Research Methodology, Research Methodology and Advance Level Research Methodology Courses
- Development of thematic monographs in order to disseminate implications of research findings to practitioners aiming at improving their practice and to inform research issues and themes in priority areas of education to SCERTs, CTEs, IASEs, Education Depts. of Universities
- To provide continuous research based support to strengthen Innovative Teacher Education Programmes for their replicability on larger scale

Survey and Data Processing

- To include detailed information about EGS & AIP scheme, stagnation, dropouts and several other aspects as per requirement of the users in 7th All India Educational Survey
- Utilisation of advance in research and survey methodology and ICT in formulation of 7th All India Educational Survey
- Development of Projection Methodology and Progress Oriented Indicators
- Emphasis on development of indices for measurement of quality schooling
- Development of a Composite Educational Development Index (CEDI) on the lines of Human Development Index (HDI) and publish the changes using such an index to reflect the variation in status of education in states/districts periodically

Training/Teacher Education/Extension

- All training programmes offered by NCERT should have an in-built component of assessing its effectiveness
- **Pre-service programmes of RIEs** i.e. 2 year B.Ed Programme, 1 year M.Ed Programme and 4 year integrated courses need to be revised from the point of view of the thrust areas of National Curriculum Framework, Information and Communication Technology, value education, needed interventions for girl child, SC/ST children and children with special needs, all-round development of the learner and the training need of teachers/teacher educators
- Development of guidelines and textual materials for preparation of competency based, performance oriented teacher education programmes both at elementary and secondary level teacher preparation
- Formulation of pre-service training models in the areas of ECE, inclusive education, alternative schooling and vocational education for experimentation
- Formulation of the model of decentralized in-service training methodology at primary level wherein the teachers are able to arrive at local solutions after analyzing the local problems of the classroom
- Conducting research for evolving guidelines to institutionalize school-based in-service education for teachers
- Reformulation of SOPI package
- Formulation of in-service training model in alternative schooling.
- Development of special scheme for orientation of in-service teachers of NE region in science, mathematics and information technology
- To develop model admission test for admission into pre-service teacher education courses and a system like NEET for recruitment of school teachers in order to stop the entry of poor quality teachers into teaching profession.

- Organisation of All India Competition for NCERT Awards to School Teachers and Teacher Educators for promotion of innovations in schools and teacher education institutions
- Evolving the strategies of motivating the teachers
- Building training capacity of SCERTs, DIETs, IASEs, CIEs for in-service training by adopting multiple strategies of training through new communication technologies
- Compilation of culture specific pedagogy in vogue in different parts of the country and preparation of packages for teachers and teacher educators
- Compilation of indigenous pedagogy which could be used in variety of teaching contexts and preparing packages for teachers and teacher educators
- Evolving guidelines for teachers participation in decision making process and curriculum planning
- Developing a model blue print for appraisal of teacher education institutions
- Conducting evaluative study on IPPTE-ITV project and extending its facilities as an integral part of in-service training programme across the country for teachers
- Integrating the concept of *Aesthetic sensibility* and *life skills* in all packages and related programmes for teacher's in-service education and pre-service courses

Elementary Education

- To lay down criteria standard for assessment of performance of elementary education schools
- To set criteria norms and to prescribe methodology techniques for evaluation of performance of non-formal schools
- To provide greater technical support for training of ECE faculty of DIET, develop exemplar materials for pre-school education component of ICDS scheme and coordinate ECE project in participating states
- To conduct learning achievement surveys
- To develop instructional package and manuals for different functionaries of SSA
- To develop exemplar instructional materials for non-formal education
- Capacity building of the states in proper implementation of ECE through training
- Development of materials for ECE's coordinators
- Undertaking research on effectiveness of ECE programmes and their linkages with primary education particularly in the context of SSA
- Capacity building of Resource Persons in using the new generation materials
- Capacity building of the states in development of textual materials in the contexts of SSA
- Organizing training programmes for key resource persons
- Organizing training programmes for members of appraisal mission of SSA

- Capacity building of the states in implementation of SSA through research, development and training

Education of the Groups with Special Needs

- To undertake research for contextualisation of curriculum and instructional materials to address the needs of special focused groups
- Development of research based focused interventions to meet the educational needs of children belonging to scheduled castes, scheduled tribes, children with physical and intellectual impairments, minorities and other children in difficult circumstances
- Documentation of interventions emerged out of research/studies conducted by different Ministries/Research Institutions/Universities and identification of mode of use/dissemination to school system specially in the area of SC/ST and disabled children
- Networking with international, national, state level organization and NGO for documentation, dissemination, training and research on issues on education of special focused groups through website and media
- Development of advocacy sensitization package and awareness materials for education of special focused groups
- Development of media programmes on disability for telecasting/broadcasting
- Development of database, documentation and dissemination of strategies for education of special focused groups i.e. children with physical and intellectual impairments, SC/ST minorities and children in other difficult circumstances
- Development of resource materials and training materials for teachers, teacher educators, educational administrators and key functionaries related to education of special focused groups as capacity building
- Promotion of inclusive education in common classroom through teacher's training/orientation, material production, curricular interventions including curricular adaptations, development of technological aids, development of support materials, evolving teaching methodology and making suitable provisions in evaluation and examination system
- Maintenance of a database and documentation successful strategies practiced by schools and organizations for inclusive education
- Conducting/promoting researches including action researches to promote best practices in inclusive classrooms

Examination Reform/Evaluation/Talent Search

- Establishment of expected level of attainments at upper primary, secondary and at senior secondary level
- Advocacy and continuous interaction with Boards of Primary/Secondary/Sr Secondary Education, Department of Education in the States, SCERTs for

evolving modalities of implementation of examination reform initiatives as outlined in National Curriculum Framework for School Education (2000)

- Conduct of learning achievement surveys
- Development of exemplar tools to assess non-cognitive capacities of the children
- Setting up of National Evaluation Organization for conducting tests on voluntary basis and for making comparison across the boards and states
- Development of alternative forms of assessment
- Development and institutionalisation of school based assessment practices
- Introduction of portfolio assessment to promote the practice of recording exemplary work of student's performance
- Development of model question bank for identification of talent at the end of secondary stage
- Identification and nurturing of talents in science and in other significant areas of learning
- Identification and nurturing of talents of tribal children

Curriculum/Instructional Materials

- To validate and set standards/norms/criteria of detailed curriculum, text books/work books, supplementary reading materials, teachers' guide, learning materials, multimedia; minimum facilities such as classroom, sanitation, science laboratory/equipment, library, number and qualification of teachers in consultation with Boards of School Education, SCERT and Directorate of School Education in the states
- To develop model curriculum, exemplar text books/work books, supplementary reading materials, teacher's guide and multimedia for all classes in school and for all streams after field testing following standard procedure
- To evaluate new text books/instructional materials prepared by the states and to provide feedback

Contents of Database

- Quantitative and qualitative indicators on school education obtained through survey
- Curriculum and instructional materials developed in different states at different stages of school education
- Trends/development in the area of school education at different stages in the states as well as in other countries
- Services and service providers in the field of education of children with special needs and alternative schooling
- Specialists/resource persons in priority areas of concern
- Issues related to planning, implementation and evaluation of centrally sponsored schemes

- Innovative practices in school education and teacher education
- Data concerning educational status of girl child in the states districts

Vocational Education

- Formulation of work education and pre-vocational education courses to develop basic skills and occupational awareness in the students of elementary and lower secondary stages
- Development of models of competency based and job specific modular vocational education courses at +2 level having marketability, social acceptance, local contextuality, appropriate linkage with industry and having provision for apprenticeship training on the basis of techno-economic survey
- Development of a framework of National Vocational Qualification System for standardization of vocational skills, training and qualifications
- Formulation of design of vocational education programmes for school dropouts, child labour, girls, disabled and demographically disabled groups (SC/ST/OBC and minorities)
- Development of a system for vocational competency Certification
- Formulation of competency based pre-service and in-service training of vocational teachers (BEd in Vocational Education courses in collaboration with RIFs)
- Promotion of programmes of vocational education through distance learning and information technology mode (in collaboration with NOS)
- Development of flexible, modular, multi-entry and multi-exit vocational programmes for different target groups, particularly the out of school youth population
- Development of a system for accreditation of vocational programmes offered by NGOs/voluntary organizations and other institutions
- Promotion of vocational guidance and counselling activities
- Promotion of international cooperation and networking in the field of vocational education
- Development of strategies for inculcation of values, environmental consciousness through work experience and vocational education programmes
- Promotion of vertical linkages with students' mobility
- Development of guidelines and quality instructional materials for effective implementation of vocational education programmes in the states through various modes
- Maintenance of a data base on Vocational Education and dissemination of information to states

Modes of Professional Development of the Faculty

- Developing a culture of dialogue and discussion across different constituent units/departments on issues of research, innovations, development and training
- Organisation of induction level training for newly recruited faculty
- Web-based professional development
- Orientation of NCFRT faculty in all areas of NCFRT's work
- Short attachment of NCFRT faculty in SCERT SIFs
- Promotion of specialisation of the faculty
- Strengthening of research, training and development capacity of the faculty through periodic training

Information Technology

- Identification of desired IT competencies and assessment tips for Primary, Upper Primary and Secondary Stages
- Mode of integration of IT into various subject disciplines at different stages
- Identification of teacher competencies in the area of IT
- Development of IT-based learning materials for children in all subjects to support the traditional learning packages
- Development of IT based training materials for pre-service and in-service education of teachers on pedagogy that integrates IT in teaching-learning process
- Development of training programmes for teacher educators on pedagogy that integrates IT in training process

Educational Technology

- Development of IV radio programmes for supporting innovative learning for 6-14 years age group which combines entertainment, learning, value inculcation and culture education
- Integration of quality audio radio video programmes with printed materials and existing teaching-learning process by removing mismatch between transmission, timing of the school and provision of receiving facilities
- Development of multimedia CDs for interactive learning
- Improvement of the quality of media software and low-cost teaching aids
- Undertaking capacity building programmes through training of teachers, teacher educators, script writers, producers, presenters and technical personnel involved in IT teleconferencing, developers of multimedia CDs etc
- Coordination and guidance of the activities of 7 (seven) SIFs in the states and initiative for setting up more SIFs
- Building of capacity of NCFRT faculty in ICT

- Coordination of T-V and radio programmes broadcasted through DD and AIR, utilization of Gyan Bharati (Gyan Darshan and Gyan Vani) for sustained intervention
- Development of curriculum in IT, low cost teaching aids and multimedia for teachers training
- Acquisition of Uplink Facility for transmission of school level programmes and training of teachers, obtaining a Digital Transponder on INSAT-2E
- Creation of V-SAT receiving facilities at the associate organizations/institutes (SCERTs, SIFTs, DIETs) for two-way video and audio communications
- Development of Off-line (CAL) and On-line (Internet) packages for interactive learning
- Increased use of audio medium for learning of language, SST and Music
- Undertaking research based proto-type programme production to serve as benchmarks for various media organizations
- Encouraging home-viewing to improve utilization
- Creation of National Repository of Media Resources

Value Education

- Undertaking research for conceptual understanding of values and understanding the process of value education
- Development of materials on value education for training and orientation of school personnel
- Documentation and dissemination of innovative strategies to be practised by school and teachers for nurturing universal human values common to all cultures and religion among school students
- Networking with stakeholders for harnessing resources on value education
- Organization of massive awareness generation programme on value education
- Organization of training programmes on innovative strategies of value education

Educational Psychology and Guidance

- Undertaking research in educational psychology for providing inputs to curriculum designing and transactions, preparation of instructional materials, teachers training, formulation of evaluation tools, organization of teaching-learning in languages, development of strategies of SSA and development of strategies for education of girl child and disabled
- Preparation of materials for pre-service and in-service training in guidance and counseling

Women's Education

- Reformulation of training designs from gender perspective in pursuance with NPE, POA and National Curriculum Framework for School Education 1986-1992 (2000)
- Development of exemplar materials, biographies and resource materials for raising the self-esteem and self-confidence of the girls and women
- Researches in areas for promotion of the participation of girls in non-traditional vocations and technical-professional education
- Status studies in states and districts having low female literacy
- Updating district wise database on Women's Education
- Conducting Researches on problems and issues concerning adolescent and out of school girls
- Evaluating the status of the involvement of NGOs in promoting enrolment and retention of girls in schools
- Evaluation of curriculum materials from the viewpoint of gender bias and gender stereotyping and evolving gender friendly textbooks
- Redesigning training methodology on Women's Education and strategies based on research findings of the evaluation studies
- Organizing training programmes on gender sensitization for all stakeholders in education
- Organisation of workshops, orientation programmes and seminars on the interventions for the education of girl child
- Conducting impact studies on provision of centrally sponsored schemes and other incentives related to participation of girls in education
- Extending support to Sarva Shiksha Abhiyan, ITA initiatives by providing interventions for education of girl child
- Redesigning training manuals and handbooks on education of the girl child women's education for capacity building
- Designing suitable interventions for access, enrolment, retention and achievement of girls at all levels of school education

Capacity Building Areas

- Production of instructional materials i.e. text books teacher guide, multi media and their tryout
- Training in use of instructional materials
- Preparation of local specific, culture specific curriculum
- Conduct of action research, policy research and evaluative studies
- Use of IT and multimedia in classroom
- Development of evaluation tools
- Providing technical support advice to panchayat through BRC/CRC/DIE-I in planning and implementation of educational programmes

- Development of materials for ECE, inclusive schooling, alternative education, education of girl child, education of SC/ST, minorities and normal
- Awareness generation programmes about education of girl child and education of children with special needs
- Training on modes of obtaining community participation
- Training/orientation of faculty, state level resource persons, teachers/administrators, parents in educational intervention for SC/ST children, girl child, children with special needs, organization of non-formal education
- Proper implementation of ECE

NCERT is to build capacities of state level resource organizations by adopting multiple strategies of training through new communication technologies like teleconferencing, local area networking, internet etc. and in decentralized adaptation of approaches and materials in relation to local needs. Collaborative research and development of materials could be another mechanism for promoting capacities of state agencies/state-level resource organizations

Methodology of Networking/Convergence Strategies/Linkages with international/national/state level institutions/organizations and monitoring/evaluation

- To evolve modes of viable convergence strategies/linkages and regular interaction/dialogue with State Departments of Education, State Boards of Primary/Secondary Education, State Boards/Council's of Higher Secondary Education, State Bureau of Educational and Vocational Guidance, central level institutions/organisations like CBSE, Kendriya Vidyalaya Sangathan, Navodaya Vidyalaya Samithi, National Open School, NCTE, NGO's, international organizations etc.
- To evolve modes of persuading the state departments through organization of state-level meetings where all departments may participate or through discussion with individual departments
- To offer consultancy services to state departments dealing with school education in the following areas
 - children with special needs in inclusive setting
 - education of girl child
 - education of SC/ST children
 - ECE
 - Vocational education programme
 - integration of values to all school activities
 - teachers training
 - education examination reform
 - adolescent's education

- population education
 - preparation of instructional material,
 - Sarva Shiksha Abhiyan
- Computer networking between NCERT and different national level institutions/universities, state/district level resource institutions and within NCERT constituents for dissemination of information, linkages, coordination and monitoring
 - Monitoring and evaluation of central sector projects on school education

**NATIONAL CONFERENCE ON EMERGING ISSUES/CONCERNS
IN SCHOOL EDUCATION AND THE ROLE OF NCERT**

Duration: 29-30 August, 2001

Venue : Room No 202
CIET Building
NCERT

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29. Prof Rajendra Dixit
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- 30 Prof. R D Shukla
Dean (Coordination) and Head
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NCERI
- 31 Prof. Utpal Malik
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DCETIA
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- 32 Prof. G K Lehn
Head
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And DEAN (A)
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- 33 Prof. Ved Prakash
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- 34 Prof. R R Saxena
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- 37 Dr. S L Verma
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- 38 Prof. Puran Chand
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39. Prof R I Phutela
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40. Prof C S Nagaraju
DERPP
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41. Sh. S K Batra
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42. Dr A K Srivastava
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43. Dr C.G V. Murthy
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45. Prof. J S. Gill
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46. Dr. Gouri S.
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47. Prof. D K. Bhattacharjee
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